Mahadev Mohan

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EDUCATION

University of Wisconsin - Madison

Madison, WI

B.S. in Computer Science (Dean's List)

Related Coursework: Algorithms & Data Structures, Agile Development, Cybersecurity, Artificial Intelligence & Machine Learning,
 Data Visualization, Database Design.

EXPERIENCE

Gurnee Youth Leadership Initiative, Non-Profit

Gurnee, IL

Information Systems and Technology Lead

June 2024 - Present

- Oversee technical operations for scaling up the organization, including website, database, and server management.
 - o Implemented Zapier automation to seamlessly record all transactions from the website onto an Airtable database.
- Conduct research and actively migrate several applications to more scalable platforms to enhance the organization's growth potential.
- Liaised with hardware and software vendors to bolster the organization's technical capabilities.

Oshkosh Corporation - Todalacity, Supply Chain Insights LLM Development

Madison, WI

Student Developer

September 2024 - March 2025

- Built a cutting-edge news app leveraging Retrieval-Augmented Generation (RAG) architecture for Oshkosh's supply chain leadership, delivering real-time industry insights to support data driven decision making.
 - Used free, outdated LLMs (no funding) and optimized inference to deliver real-time insights in ~5 s.
 - o Additionally developed a UI using React Native for stakeholders to easily interact with app and give valuable feedback.
- Created a Large Language Model (LLM)—based chatbot to enhance user engagement and deepen analytical capabilities across the platform by interpreting articles in a conversational demo.
- Led a six-member Agile/Scrum team: ran daily standups, planned and tracked sprints in Jira and delivered the prototype 25% faster than the original schedule.
- Presented application to CTO, CIO, and other leadership of Oshkosh at their global headquarters, gathering feedback to inform potential next phase development.

Black Box Inc. Minneapolis, MN

Enterprise Solutions Intern

May 2023 - Aug 2023

- Applied cutting-edge deep-learning and artificial intelligence techniques to revolutionize existing marketing outreach strategies.
 - Leveraged deep learning technology to create a personalized deepfake video featuring the sales director, successfully engaging
 10 C-suite executives for a premier sales event.
 - Received commendation from management for innovatively utilizing deepfake videos to represent the sales director at weekly meetings, enhancing team engagement during his absence.
- Spearheaded outreach management by integrating state-of-the-art technologies to engineer a streamlined and highly efficient approach.
 - o Developed and executed a targeted LinkedIn outreach campaign that garnered over 6,500 impressions on an account with fewer than 200 followers by strategically capitalizing on platform algorithms.

PROJECTS

Tweeter Game, Python

- Developed a comedic, retro-style interactive game using Tkinter, threading, and Retrieval-Augmented Generation (RAG) architecture for dynamic Al-generated responses and real-time GDP animations.
- Implemented a multi-threaded design to prevent blocking, featuring music playback, animated counters, and a user-friendly tweet interface that showcases humorous Al-driven commentary from global players.

detectDfect Steel Detection Application, Python

- Implemented YOLOv8x, an advanced deep learning model, to accurately detect and classify various defects on steel surfaces from images, showcasing proficiency in cutting-edge computer vision techniques.
- Developed and trained the model using a comprehensive dataset, enhancing its ability to identify subtle and complex defect patterns, thereby contributing to significant improvements in industrial quality control processes.
- Created a sophisticated algorithm to estimate the life expectancy of steel based on detected defects, employing linear regression and statistical analysis to provide valuable insights into material durability and maintenance needs.

SKILLS

Programming: SQL, Java, Python, JavaScript, HTML/CSS, Node.js, C, Bash

Tools: MySQL, Tableau, MongoDB, Salesforce, Microsoft Suite (Excel, PowerBI), Zapier, Airtable, Jira, Android Studio, Git, Virtual Box, Snowflake Languages: English & Malayalam (Native/Bilingual Proficiency), Hindi (Limited Working Proficiency), French & Arabic (Elementary Proficiency)

Traits: Analytics & Problem Solving, Collaborative, Leadership & Business Development, Communication, Adaptability